

BOROUGH



OF LUTON.

ANNUAL REPORT

OF

MR. HORACE SWORDER, L.R.C.P.. M.R.C.S.,

MEDICAL OFFICER OF HEALTH,

for the Year ended the 31st day of December, 1905,
presented to the Sanitary Committee on the 16th day of
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MEDICAL OFFICER OF HEALTH'S OFFICE,
GEORGE STREET, LUTON,

JANUARY, 1906.

GENTLEMEN,

I beg to lay before you my Report for the year ended December 31st, 1905, being my Twenty-seventh Annual Report.

During the year, 1045 Births and 526 Deaths have been registered, equal to Annual Rates of 27.1 and 13.6 per 1000 respectively. The Births therefore exceeded the Deaths by 519.

The Population of the Borough has been taken for the whole year at 38,500. At every Census since I have been your Medical Officer the population has been considerably over estimated. I intend this time to endeavour to keep it well in bounds.

In the 1st Quarter there were 242 Births and 150 Deaths.

„ 2nd	„	247	„	131	„
„ 3rd	„	285	„	111	„
„ 4th	„	271	„	134	„

There were 126 deaths under 1 year.

„	27	„	between 1 and 5
„	373	„	from 5 and upwards.

Seventeen deaths only were referred to the seven principal Zymotic Diseases, viz.: Five to Whooping Cough, and twelve to Diarrhoea, equal to a Zymotic rate of only 0.04 per 1000.

Last year this mortality was just over 1 per 1000, and was stated to be probably the lowest ever recorded; however that may be; this, without any doubt, is a record year for low Zymotic Mortality.

Small Pox.—We have not even had a scare of Small Pox, in spite of the large number of tramps passing through the Borough and the continued prevalence of the disease in many of the northern towns and districts. Legislation is necessary to deal with the tramp question, and the Local Government Board have appointed a Departmental Committee to consider it. It must always be remembered that there are three classes of “out of works,” viz.: the class who won’t work, the class who are physically unfit, at least for hard work, and lastly, *bona fide* labourers on the look out for work. In my opinion the last class deserves to receive very great consideration, the members should carry a properly certified guarantee with them, which should ensure them being put in the most likely way of obtaining work, through labour bureaux or otherwise. Whatever happens, this class should be ensured in the possession of their self respect. I have before expressed the strong opinion that ordinary tramps, like flies, have no *raison d’être*—as such.

Measles.—No death was referred to Measles during the year.

Diphtheria and Croup.—Wonderful to relate, as in 1902, no death was referred to these diseases. Seven cases only were notified, viz., 3 in the first quarter, 2 in the second, 0 in the third, and 3 in the fourth.

I can say little about the direct cause of infection in the above cases; this will not be considered surprising when it is understood that so many cases of this disease in children are undoubtedly contracted from those who have not had the disease themselves but have only been in contact with a case of diphtheria or of so-called “sore throat.” Many a case of so called “sore throat” is mild diphtheria, and the subject of it may return to school while still able to cause wholesale infection in others. Many of the children thus infected may not contract the disease themselves, but their throats and noses containing the germs may render them also further centres of infection.

The opinion is rapidly spreading that the indiscriminate use of the same pencils, slates, pens and drinking cups, is a common cause of infection. If children did not attend school until five years of age the danger of diphtheria infection would be greatly minimised, as statistics show that the number of cases and the fatality steadily decline after the 4th year. I hardly, however, think this step practicable or otherwise desirable, for if these young children did not attend school, some other provision, no less objectionable probably in this respect, would almost certainly have to be made for them. At school they are at least taken away from their constant playmate, the household cat, which has so long been under suspicion of harbouring and spreading the infection of diphtheria. School drinking cups ought to be abolished and paper might be provided instead of slates. A few epidemics have arisen through the presence of ulcers on the teats of milch cows. One sanitary authority has consequently passed a unanimous resolution—that grooming of cows, washing of teats and udders and washing of hands will in future be enforced, also that the Veterinary Inspector’s salary be increased so that he could report monthly to the Medical Officer of Health the condition of the cows in his district. These common-sense suggestions would, at present, I am afraid, only be a counsel of perfection, here, or elsewhere. It is satisfactory to know that in this borough diphtheria appears to be assuming, like scarlet fever, a much milder type; for this I have no opinion to offer.

Scarlet Fever.—Thirty cases have been notified during the year, but no death was registered, in confirmation of my remarks as to the mildness of the type. Ten cases were removed to Spittlesea, as usual no return cases occurred, all of them were kept in until desquamation was completely ended, each case averaged a stay in the Hospital of 46·7 days. Though it is, perhaps, more than probable that in the late desquamative stage there is little fear of infection, yet detention of the cases until this stage is completed allows time for the noses and throats, from which sources it is probable that return cases usually arise, to get thoroughly well.

The Medical Superintendents of Fever Hospitals, as a result of the examination of facts brought forward by Dr. Cameron and of such other sources of information as are well known to them, make certain recommendations which would necessitate acute and convalescent hospitals, discharge wards, verandahs or other forms of shelters. They also suggested that the following notice be printed:—“Although every endeavour is made to send out patients free from infection, it is advisable as an additional precaution, that they should, as far as possible, be kept away from other children, including attendance at school, for the first three weeks after their return home. They should certainly not sleep in the same bed, and, if possible, not in the same room with children who have not had the disease.”

“It is also advisable that articles used by the patients—such as cups, plates, spoons, handkerchiefs, towels and toys—should, during this period, be kept distinct from those used by other children.”

“The above precautions are specially important in the case of those patients suffering from discharge from either nose or ears.” I have only quoted a few of the recommendations for the purpose of showing that for us the cheapest and most satisfactory policy is to do as we deliberately decided to do some time back, viz., to keep every case in the hospital until desquamation had entirely ceased. To send our children home and weight their parents with the above suggestions, impossible of performance, would not be worth the paper on which the directions were printed.

Typhoid Fever.—Six cases were notified during the year; three were treated at home and recovered, and three were removed to the Fever Hospital, of whom one died. Two cases were notified in the first quarter and were removed to hospital. In one case three specimens of blood were forwarded at intervals to the Clinical Investigation Department of the Cambridge Pathological Laboratory with, in every case, negative results—yet clinically the case could not be diagnosed as other than one of typhoid fever. In neither case could any of the usual causes be found to account for the occurrence of the disease.

In the 2nd quarter one case was notified and treated at home, the expense of the hospital being prohibitive.

In the 3rd quarter, one case was notified; a boy of eleven; he was treated at home, the relatives refusing to allow him to go to the hospital. This decision was, doubtless, answerable later for the death of his mother, for she, in all probability, contracted the disease from him. This case markedly shows the inadvisability of treating these cases at home; they essentially require night and day nursing; if one person, and that an unskilled one, endeavours to be the sole nurse, the stringent precautions necessary to prevent the nurse contracting the disease must frequently be relaxed, for it is more than flesh and blood can, ordinarily, stand, to give continuous attention and take continuous precautions for a few weeks on stretch. If after such a dose of nursing the disease is contracted by the nurse, she comes to the illness half, if not thoroughly worn out, and therefore with a very modified chance of successfully combatting it. How the poor woman's son contracted the disease is unknown, but there had undoubtedly been cases of illness in other members of the family previously, at one of these houses the boy had visited. The nature of the illnesses could not be gathered with any certainty. It appears to be impossible in many cases to satisfactorily account for the origin of these sporadic cases. If we had retained the large number of privies which were in existence at my appointment in 1878, we should have a suggestive cause always ready to hand. In Luton our privies have, however, been reduced to a negligible quantity (12). It has been conclusively shown that typhoid germs, when sown into clean soil, uncontaminated especially with animal filth, soon die, but if sown into earth reeking with animal filth, as obtains in so many privy-ridden towns in the north, manage to survive all through the winter, then when next year the hot weather comes these germs increase and multiply so greatly that the soil will remain infected so long as the privy middens pollute the soil with filth of all kinds and especially that of human excrement.

The evidence in favour of water closets versus privies is conclusive. Flies, of course, can only enter into the question during their time of activity and especially during very hot weather. That their activities are limited in time is a cause of thankfulness when one observer states:—“Ordinary house flies (*musca domestica*) can convey enteric infective matter from specific excreta or other polluted material, to objects on which they may walk, rest or feed. That such infective matter appears to be attached, not only to their heads but also to their legs, wings and bodies. It has not been proved that the enteric bacillus passes through the digestive tract of the fly.” That there are other causes in the dissemination of the typhoid germ in addition to the fly, the same observer goes on to add. He states:—“This is evident from the fact that 30 to 40 per cent. of the cases occur at a season of the year when the common house fly is absent: many such cases are traced to contaminated milk, infected water supply, shell fish and watercress. Lately, it has been found that early broccoli, imported from Italy, have given rise to cases due to forcing them for the English market with the contents of cesspools. A similar state of things is carried on in many market gardens in an English county, as I have actual proofs. Midden refuse is put on to the ground and growing vegetables, and the contents of privies are ladled into tubs, diluted with water and the vegetables watered with such to force their growth and then brought into the market.”

With regard to shell fish and the typhoid bacillus, Dr. Klein has carried out for the Fishmonger's Company a number of experiments in order to ascertain the duration of vitality of the typhoid bacillus when introduced into shellfish. His principal conclusions are:—

1. Oysters readily take up into their interior the typhoid bacillus which has been introduced into their shell or into the surrounding water.

2. Oysters, clean at starting, rapidly clear themselves of ingested typhoid bacilli if they are kept in clean water which is frequently changed.
3. Oysters, clean at starting, clear themselves of the ingested bacilli to a less extent and slower, if they are kept in a "dry" state—i.e., out of water.
4. Oysters from a polluted locality, containing large numbers of the *Bacillus Coli* very rapidly clear themselves of this microbe, whether kept in or out of water. This shows that *Bacillus Coli* is foreign to the oyster and is rapidly destroyed by it. When, therefore, it is present in the oyster it must have been derived from the surroundings.
5. Cockles readily embody typhoid bacilli present in seawater, although the number at first appears to diminish in the body of the cockle, it soon increases to a considerable degree, for five days after cockles had been removed from polluted water to clean sand the number of typhoid bacilli in their bodies was threefold that originally present. Their subsequent diminution proceeded slowly, since a cockle examined ten days after removal from infected water still contained in its body 69,000 typhoid bacilli. Mussels also readily embody the typhoid bacillus, in fact, analysis seems to show that they do so to a greater extent than oysters or cockles. As regards the fate of the typhoid bacilli in mussels these appear to stand between oysters and cockles, since in mussels the bacilli undergo gradual diminution, which occurs incomparably more slowly than in oysters, but somewhat more quickly than in cockles.

I have given these conclusions in full because I think it is so important that they should be brought to the notice of the general public. Our general public is, I believe, particularly fond of cockles and mussels. Possibly this partiality would not be so pronounced if the highly unsatisfactory nature of the sources from which these delicacies are so frequently derived were more generally known.

Epidemic Diarrhœa.—Sixteen deaths were referred to diarrhœa, of which 1 occurred in the 1st quarter, 13 in the 2nd, and 2 in the 4th. Of these deaths, 10 in the 3rd quarter were referred to the epidemic form of the disease, the synonyms for which are:—epidemic enteritis and zymotic enteritis. Enquiries were made into these 10 deaths. Of these,

- 1 was fed wholly on breast milk.
- 2 were fed on breast milk and artificial foods.
- 7 were fed on milk or other foods alone.

The ages of these infants ranged from 1 to 10 months and the duration of the illness from 1 to 6 weeks. The milk in every case was purchased twice daily. In only one was there any source of contamination near the place of milk storage, in this case a dust bin. The sanitary arrangements were fair in every instance and in no case were flies said to abound. The low atmospheric temperature which obtained in August appeared to determine, however that may be, the very moderate August diarrhœa mortality, and this was continued into September.

Dr. Tanner Hewlett, in a valuable paper on the ætiology of epidemic diarrhœa, sums up the facts as follows:—

1. Epidemic diarrhœa causes an appalling loss of infant life and is largely preventable.
2. The incidence of epidemic diarrhœa falls almost exclusively on artificially reared infants.
3. There is no specific micro-organism of the disease, but the bacillus dysentericæ is the causative organism in a large proportion of the cases, &c., &c.
4. The infection of the food takes place mainly in the homes.
5. This infection may be brought about in various ways.
6. A strong case has been made out against the house fly as a potent carrier of infection.

Epidemic Diarrhœa has been well described as "an infective disease, chiefly affecting children under two, occurring during the summer months in epidemic form and characterised by diarrhœa and wasting and accompanied in severe cases by toxæmia and collapse."

Of the total infantile mortality, diarrhœal diseases in this country contribute rather more than one-fifth, and of the diarrhœal deaths themselves about five-sixths are referred to the epidemic form.

The diarrhœa mortality for urban districts is nearly double that of rural ones; this is not so with any other disease.

There is a most intimate association existing between the feeding of infants and epidemic diarrhoea. Breast-fed children are almost exempt. Out of 2800 children born in 1903, in a northern town, 1960 were breast-fed and only two deaths from diarrhoea occurred among them. But out of 840 bottle-fed children 59 died. This waste of life, due to improper feeding, is very great, and especially when one remembers that it nearly all practically occurs within 2 or 3 months. If one were asked how artificial foods act prejudicially, one would say, that as a rule they are very indifferent substitutes for mothers' milk, that they often set up digestive disturbances and so lower the vital resistance of the infants; further, that the breast-fed child being fed directly from the mother the milk is comparatively sterile, but with artificial food the risk of infection is enormous. One has only to think of what vicissitudes pure cow's milk so frequently has to undergo in its transit from the cow to the consumer, and even then the treatment it may be subjected to in the house of the consumer—only to mention storage, flies and feeding bottles. The milk the infant obtains is often quite a different fluid to the secretion of the cow previous to milking.

A few years ago Ballard's law was accepted as an explanation of diarrhoea becoming epidemic at a particular season of the year, and also his explanation of the cause, which he attributed to a *specific* micro-organism whose habitat he located in the superficial layers of the soil. Now it is generally understood that though the bacillus dysenteriae is the usual causative organism it is by no means the only one. Ballard's explanation of the occurrence of the epidemic in the hot weather was the raising of the earth temperature to 56.4° , four feet below the surface. A recent observer states that this has no connection with, or any bearing upon the annual epidemic of diarrhoea. He says that that temperature may be reached and sustained or exceeded for weeks together and no epidemic appear if the atmospheric temperature is low in the months of July, August and September, or if there be much rain during that period—*limiting the number of flies*. He further says that his observations, since 1878, show that diarrhoea makes its appearance in seven to ten days after flies appear in large numbers. Other authorities have noted departures from Ballard's law.

Dr. Delepine is of opinion that faecal contamination of milk, at the farm or in transit, is at the root of the infection of the milk which produces diarrhoea.

Dr. Newsholme, of Brighton, concludes that :—

1. Towns which have adopted the water carriage system of sewerage have, as a rule, much less diarrhoea than those retaining other methods of removal of excrement.
2. Towns with the most perfect scavenging arrangements, including the methods of removal of house refuse, have the least epidemic diarrhoea
3. Given two towns equally placed, so far as social and sanitary conditions are concerned, their relative diarrhoeal mortality is proportional to the height of the temperature and deficiency of the rainfall in each town, particularly during the 3rd quarter.

Dr. Waldo has suggested that street dust, particularly dried horse dung, is the polluting agent.

Dr. Nash suggests that the diarrhoea mortality closely follows the life history of the common house flies and that they are largely responsible for the infection of food. He says that "the house fly begins to make its appearance in June, becomes a veritable pest during July and the early part of August, after which its existence tends to become a more sexual one and it decreases in number." He says, "this creature is often called the harmless fly. I certainly give it the first place as a pathogenic agent in the summer months. It is a useful scavenger if kept in its place, but when allowed to fly straight from the dung or refuse heap to commit suicide in the milk bowl, or alight on the lips of a sleeping infant, or walk over meat and other articles of food on the table, I repeat, I consider it the most active pathogenic agent during the summer and the principal cause of summer diarrhoea."

Attention has been drawn to one or two outbreaks of epidemic diarrhoea in the neighbourhood of brickmaking. Flies breed in millions in the accumulation of refuse accompanying the making of bricks. The dwellers in the houses have at times hardly been able to see their food for the flies which have, just previously, fed on refuse. Food under such circumstances can hardly fail to get infected, and if the microbes infect milk they increase in it in a few hours to millions, and possibly, set up intestinal irritation which may result in fatal diarrhoea.

These causes, as regards house and street refuse, are to be met by thorough scavenging and road watering, and I hardly like to suggest the general use of motors instead of horses. With regard to the fly pest, each householder has it in his power to mitigate the nuisance somewhat, but for my part, I believe, the day is coming when concerted efforts will be made to remove what so many people still persist in believing to be an innocent nuisance.

In last year's report, I went carefully into the subjects of milk depots, lady inspectors, and the education of girls in the duties of wifehood and motherhood and recommended strict regulation of the milk supply, from the cow to the consumer, and the education of the consumer by means of a lady inspector. This subject is of such vital importance to the nation that I make no apology for placing much of the latest and best information on the subject before you.

Phthisis.—During the year 40 deaths were so referred, viz., 13 in the 1st quarter, 10 in the 2nd, 7 in the 3rd, and 10 in the 4th. If 40 deaths occurred in the year, how many cases of phthisis were existent? It is impossible, in the absence of notification, to say with any certainty. It is quite possible that such knowledge, if obtainable, would morally compel us to make some provision for the disease. Disinfection was carried out in all cases, either by the authority or by the occupiers. It has been estimated that there are 60,000 deaths annually from this disease alone in England and Wales, and 240,000 cases in Great Britain; also 8,000 deaths in London from phthisis alone, and as many more from other tuberculous diseases. The 60,000 deaths above alluded to, at the rate of £300, the estimated value of each life (usually the prime), shows a total loss of £18,000,000 per annum. Phthisis is said to cost London £4,000,000 per annum. The working classes of Liverpool are also said to lose £300,000 per annum in wages when on sick list, from tuberculosis.

In Paris, tuberculosis is the cause of between 12,000 and 13,000 deaths per annum, or about a fourth of the total mortality. A French writer's report makes special reference to the density of population in the different sections of the city and also to the ventilation, using the number of doors and windows as an index. The proportion of deaths from tuberculosis ranges from 1·3 per 1000 in the eighth arrondissement where the proportion of doors and windows is 4·2 for each inhabitant, to 8·2 per 1000 in the twelfth, where there are only 1·8 doors and windows per inhabitant. This proportion of doors and windows is in accordance with a certain interior space, and therefore affords an index to the overcrowding of the population as well as to the ventilation. These remarks bring us to the subject of Sanatoria, where doors and windows—open doors and windows—naturally abound. At present, according to Dr. Kelynack, there are only 70 sanatoria in the United Kingdom with accommodation for 2760 patients with a very meagre proportion of free beds. As regards the sufferers from the disease, he states that public and philanthropic efforts are merely touching the fringe of the difficulty. He says that sanatoria have come to stay, but are in danger from the exaggerated claims of optimists and the illfounded charges of ill-informed persons; the boom is clearly passing away because the anticipations roused have not been fulfilled. Some directing and controlling body which would deal with cases, not in London alone, but throughout the country, is urgently required, in his opinion. The policy of keeping patients in the sanatorium until on the point of death and then sending them to their homes, possibly to die on the road, as has happened in one or two cases recently, is most reprehensible, and likely to bring any system into disrepute. The time is ripe for a governmental enquiry into the whole subject of the treatment of the consumptive poor, and, if proper sanatorium provision were made as a result of it, the middle class should not be forgotten, for this class is often quite as unable as the one lower, to pay for the necessary treatment. If the disease is ever to be exterminated, as advanced sanitarians quite believe to be possible, the erection of sanatoria will have to become general. The disease is curable if recognised and treated in time. Suspicious cases, where hardly a reasonable doubt exists as to the presence of Phthisis in its very earliest stage ought to be treated in sanatoria; if advanced cases are provided for elsewhere, as they ought to be, there would be no danger of infection, even if a wrong diagnosis were made; if the case were an early stage one a rapid cure might be expected, and if only a case of wrong diagnosis, recovery too would be still more rapid and the subject of it would be removed from the category of cases just in a susceptible state for bacilli of tubercle to take hold of. Wealthy people can provide suitable treatment for themselves, whether at home or abroad, but the working classes must have such treatment provided for them as nearly on the spot as possible. It is said to be of importance that a patient shall be cured in the climate in which he has subsequently to live. Patients who have been apparently cured in a foreign climate often immediately relapse on their return home. If other than curable cases are admitted into sanatoria, patients and relatives are apt to decry them as useless: too much is expected. Such treatment is the best that medical science has to offer and it can only be successful in selected cases; if these were cured and the advanced ones treated in Institutions where they could not spread infection, some appreciable reduction might soon be made in the volume of this disease. It must not be forgotten too that the inmates of sanatoria, on their return home, become apostles, and preach the gospel of cleanliness, fresh air and hygienic precautions to large circles of friends and relatives. In Germany a law was passed, a few years ago, compelling every one, whose income was £100 [and under, to insure against sickness. The insurance companies discovered that nearly half their sick pay was devoured by consumption.

These German companies, then, acting on medical advice, and purely on business grounds, decided to erect numerous sanatoria all over Germany on the most approved and up-to-date principles. Dr. Raw, whom I am quoting, states that the one at Beelitz is the finest institution he has ever inspected and provides accommodation for 600 consumptives and 400

other patients. He further says that the German insurance companies have found by experience, that as a matter of business, and apart altogether from philanthropy, it is cheaper to place their patients in sanatoria and cure them, or add a few more working years to their lives than to continue to pay sick pay for an indefinite number of years, for the disease is so often slow and insidious. This, to Dr. Raw's mind, is the most eloquent testimony to the great value of sanatoria. In this country there are not available at present, any data to show that it would be to the interest of our insurance companies to devote their funds to the curative treatment of their insured. The cases of mutual benefit societies and co-operative societies which pay sick money is different. At the recent tuberculosis congress, held in Paris, the experience of two societies was quoted. In the Order of Foresters, a tuberculous member represents to the society an expenditure, without sick pay, of £14 more than a member suffering from any other malady. In the Hearts of Oak Society, the difference per head is 17 guineas. It was suggested that it would answer the purpose of these societies to undertake the cure of its members. A resolution somewhat on the lines of the German law, above mentioned, was also adopted. A foreign observer has pointed out the great danger to which laundry employees are exposed by breathing the dried sputum from various articles—handkerchiefs, napkins and bed linen. All these articles are sorted out indiscriminately and the employees live in an atmosphere of bacillus dust. Out of 1590 laundry employees treated at one hospital more than a third of the 1202 women and more than one-half of the 388 men were affected with pulmonary tuberculosis, generally of the acute form. This observer remarks that when the fear of contagion is once implanted protective measures will become mere reflex actions. Families must be made to understand that they have duties to perform, and chief among them is the obligation to render harmless the virulent expectorated matters and to treat soiled linen differently from present customs. To show what can be done by system we have only to learn how tuberculous diseases have decreased at the General Post Office as a result of it. The net result has been a reduction of the total loss, amounting in some years to 50 per cent. The first means by which this great result has been effected was educational. Literature was circulated among the employees, resulting in a better appreciation of fresh air, temperature, exercise, and absolute and minute cleanliness in all things. This was especially the case during and after the meeting of the International Congress in London, 1901. In that year a prohibition against spitting was issued. In 1903, in a lengthy instruction to those concerned as to the proper methods of cleaning and ventilating the offices, dry dusting was abolished and dry sweeping forbidden. In 1904 a circular was printed on cards and hung in every office giving most useful and practical information. All the recent new buildings have been constructed with due regard to considerations of tuberculosis.

Infant Mortality.—126 deaths of infants under one year were registered, equal to a rate of 120·6 deaths per 1,000 births.

There were 30 deaths in the first quarter, 33 in the second, 34 in the third, and 29 in the fourth.

This low rate of infant mortality is largely due to the comparatively small number of deaths from Epidemic Diarrhœa in the third quarter. The infant mortality for the 11 years previous to 1900 averaged about 160 deaths per 1,000 births, and for the next five years 131, so that the mortality for this year is below the average for both the periods. As I went most thoroughly into this subject last year I shall now content myself with a few remarks, but before doing so, I would draw your attention to the fact that I suggested the employment of a female inspector, and that she has not yet arrived. Though the general death-rate has here and almost everywhere declined in the last 25 years, a corresponding decline in Infant Mortality can only be at least exceptionally claimed, and on looking at the above figures we seem in a position to be one of the claimants, and this would be more apparent if we went back a little further in our comparisons. We must not indulge in boasting, for given a very hot summer next year, we may easily rise to our older averages. Not only does long continued heat cause a great increase in deaths from epidemic diarrhœa, but also from debility, marasmus, etc. When a high infant mortality obtains, as it does in the country generally, with a greatly declining birth-rate, it gives much food for unpleasant thought. You cannot with advantage place the increase in length of adult life against this “renewal of a nation's stock.”

While the number of deaths from many infantile diseases has declined, the reduction has been very generally counter-balanced by a much greater mortality from diarrhœa and premature birth. While Dr. Tatham attributes the increase of the former to the artificial feeding of infants, he gives no reason for the increase in the mortality from the latter, or of the decrease of other groups of diseases. It must be noted that this excessive mortality does not occur among the infants of the well-to-do—quite the reverse. One writer says that among many other recognised causes acting adversely on infants after birth, may be mentioned birth-rate, heredity, illegitimacy, insurance, poverty, overcrowding, insanitary conditions, employment of women, improper feeding, neglect, and inexperience of the mother. We need not trouble about a high birth-rate, for it is non-existent, and when present, it only operates by introducing more infants into the world, to run the gauntlet of the first year of life. After just glancing at all the other causes, we come to the

artificial feeding and management of infants as the chief cause of the high mortality. When one considers in the feeding and management of children, how often every law of elementary domestic hygiene is persistently broken, the wonder is that more than one child in every six born does not die during the first year. It occurs to me that a creche for infants and small children, worked in connection with girls' schools, might be of great service, and even justify the expense. Girls who would be leaving school, during the next six months might, in these creches, be practically taught how to nurse, feed, manage, and care for infants and small children. No instruction given by lecturers on this subject could compare for one moment with the practical knowledge which would be derived in the way suggested. A month of such practical work would be worth a year's theory. The cookery classes, which have been fruitful in so much practical good, form a splendid object lesson. The only way to reduce excessive infant mortality, which is undoubtedly preventable, is to tackle it in the full light of the most recent knowledge of the subject, with a determination to succeed, and in the firm belief that the expenditure of the necessary money to attain such a vital object ought to be quite a *secondary* consideration.

Cancer.—There were 38 deaths referred to Cancer, viz.: 8 in the first quarter, 6 in the second quarter, and 12 each in the 3rd and 4th quarters.

During the year the Director of the Imperial Cancer Research Laboratory has made this statement: that the present practical outcome of the investigations is a strong experimental justification for the early surgical treatment of Cancer. This experimental proof has hitherto failed, but now that the needed demonstration is provided, there is no longer, in his view, any excuse for looking upon surgical treatment as only a last resource. It is primarily a local, not a constitutional disease, and its early detection and removal should be the main aim of the surgeon. Twenty-five years ago, to my knowledge, we were holding an identical opinion, but then we had not the so-called experimental proof. The investigations above mentioned, show that Cancer in all vertebrate animals is identical with that in man, and its occurrence in flesh and vegetable-feeding animals, and in various native races in India and Africa, show that *diet and civilization have not called Cancer into being*. It occurs in men and animals, mostly in old age. Thus the development of Cancer is dependent upon the length of the span of life, and in other ways on time limitations. The finding of a cure for this dread disease would take away a veritable nightmare for those advancing in years, a nightmare, too, by no means confined to those so advancing. It would seem as if the patient and persevering International Research now being pursued must in time, and very likely suddenly, be rewarded with success—success, the joy of which to the discoverer reward could hardly enhance.

In every house in the Borough where death from Cancer occurred, disinfection was carried out.

Sanitary Inspections.—According to my instructions, I now proceed to embody the able report of the Sanitary Inspector, Mr. Wright, with a few comments thereupon. In 1902, 2,172 nuisances were abated; in 1903, 1,233; and last year 782, when I accounted for the decrease by the improved sanitary condition of the Borough, due to the large number of nuisances abated in previous years as a result of constant and vigilant oversight. This year it will be seen that the total number of nuisances abated is 953, being an increase of 171. This is partly due to the rapid increase in size and population of the Borough, but almost entirely to the number of insanitary dwellings rendered sanitary; these number 234 this year against 61 last year, a difference of 173.

The following is a list of the Nuisances abated:—

Insanitary dwellings	234	No receptacle for manure	9
No receptacles for ashes	163	Defective ashpits	6
Drains and W.C.'s blocked	128	Slaughter houses requiring whitewashing	5
Water apparatus to W.C.'s out of order	62	Sinks not disconnected	3
Insanitary workrooms	58	Insufficient ventilation to houses ..	3
No constant water supply to W.C.'s ..	52	Defective ventilating pipes	3
Defective bell-traps	45	Drains unventilated	2
Defective W.C.'s	39	Pigs kept contrary to the bye-laws ..	1
Offensive smells and accumulations ..	34	Other nuisances	53
Defective drains	31		
Defective pavings	22		
		TOTAL	953

Four hundred and seventy-eight preliminary and forty-four legal notices were served in connection with the above nuisances.

Insanitary Dwellings.—Two hundred and thirty-four houses were found to be in an unsanitary condition. Most of these were thoroughly cleansed and whitewashed by the respective owners, and the remainder are in hand.

House Drains.—Three sink waste pipes were found directly connected with the drain. These were made to discharge on to 6-inch earthenware syphon gulley traps.

Closet Cleaning.—During the year twenty-three loads of night-soil were removed from privies and forty-eight-and-a-half loads from dumb-wells. The charge made for emptying same was £8 4s. 6d., and the expenditure in wages £5 5s. 4d.

Ashes, Offal and Trade Refuse Collection.—15,021 loads of ashes, offal and trade refuse were collected by the Corporation teams. This is the largest quantity of ashes and refuse ever collected in one year. The cost of manual labour in connection with the collection and disposal of ashes was:—

	£	s.	d.
Horse drivers (30,365 hours) ..	527	19	8
Fillers (41,258½ hours) ..	707	16	9
Hired horses at 4s. per day ..	148	0	0
	£1,383	16	5

The disposal of ashes was as follows:—

Destructor	7,891
Sewage Works and Farm ..	4,544
Elsewhere	2,586
	15,021

Last year's total was 13,074 loads.

The income in connection with this Department is as follows:—

	£	s.	d.
Sifted Ashes	8	17	9
Trade Refuse	116	7	0
Collecting offal from slaughter-houses ..	26	17	9
Tins			
Bottles			

Time spent in sifting, covering up, &c. (wholly manual labour), 1,200 hours; cost £19.

The collection of ashes for the last four years has been:—

1902. ..	1903. ..	1904. ..	1905.
12,333 ..	12,185 ..	13,074 ..	15,021

Ventilating Shafts.—No additional Ventilating Shafts have been erected during the year. The total number in the Borough is 46.

Inspection of Streets.—Mr. Wright states that he has, in conjunction with myself, regularly visited the streets and alleys during the year, and has taken the necessary steps to remedy all defects noticed.

Food and Drugs Act.—In connection with this Act 105 samples were submitted by Mr. Wright to the Public Analyst. The samples were as follows: 69 samples of New Milk, 8 samples of Butter, 5 of Condensed Milk, 3 each of Gin and Ice Cream, 2 each of Cream and Lard, 1 each of Vinegar, Golden Syrup, Coffee, Pepper, Margarine, Irish Whiskey, Scotch Whiskey, Cheese, Chocolate Cream, Mixed Gums, Cocoa-nut Raspberry, Jap Nuggets and Chocolate Mixture.

Of the above 4 were adulterated, viz., one of New Milk, which had a 10 per cent. deficiency of fat. The vendor was fined £5 and costs. This case was interesting in that the vendor disputed the analyst's certificate. Thereupon the magistrates ordered Mr. Wright's sample to be sent to Somerset House for analysis. It was returned as being deficient in fat to the extent of 11 per cent.

A second of New Milk: This was 13 per cent. deficient in fat. The Vendor was fined 25s. including costs.

A third of New Milk was 20 per cent. deficient in fat, The Vendor was fined £5, and costs £2 6s. 6d.

A fourth of New Milk was 10 per cent. deficient in fat. The Vendor was fined £2 5s., including costs.

All the other samples were passed, but two of New Milk were noted as being poor in fat.

Dairies, Cowsheds and Milk Shops.—Under the "Dairies, Cowsheds and Milk Shops Order of 1885" ten persons were registered as purveyors of milk.

During the year some of the inferior cowsheds have been inspected and found in fair condition, certainly somewhat improved, but suffering from the defects of their makeshift character.

Slaughter Houses.—Mr. Wright reports that the Slaughter Houses were regularly visited during the year, and, on the whole, were found to be in a satisfactory condition. Thirty-one licences were renewed, and five new licences granted. On March 20th he seized the carcase of a sheep which he found hanging in a slaughter-house; this had just been dressed; the sheep had been sent in by a farmer for this purpose. It was duly condemned by a magistrate and forthwith destroyed.

Markets.—Mr. Wright reports that he visited the markets regularly during the year. On April 15th he seized 150 lbs. of figs which were exposed for sale in the market; these were condemned by a magistrate. On May 27th he attended at Court to give evidence in this case, when defendant was fined £2 10s. and costs £1 13s. On July 8th he also seized 22 half-sieves of cherries, on the 14th July 82 lbs. of strawberries, and on the 18th of July a quantity of cherries, all of which were exposed for sale in the borough, and afterwards condemned by a magistrate. On July 15th and 29th he attended Court to give evidence in these cases, when the defendants were fined respectively £5, £3 10s. and £3, including costs. During the year he inspected 20 pecks of strawberries, 1 trunk of codfish, and 130 lbs. of meat (at the request of the owners) on arrival at Luton, before being exposed for sale. These he found to be unfit for food, and forthwith caused the same to be condemned and destroyed.

Bakehouses have all been visited during the year, and found on the whole in a satisfactory condition.

Factories and Workshops Act.

The number of registered workrooms in the Borough at the end of the year was 608.

These include workrooms used by straw hat manufacturers, block makers, box and cartoon makers, bakers, confectioners, milliners, dressmakers, tip and lining manufacturers, upholsterers, tailors, joiners, tin-plate workers, jewellers, boot makers, rope makers, cycle makers, laundresses, etc.

The following tables show the Number of Inspections, and their result:—

1.—INSPECTION.

PREMISES.	NUMBER OF		
	Inspections.	Written Notices.	Prosecutions
Factories	187	3	..
Workshops	608	75	..
Workplaces	3	..	..
Homeworkers' Premises	225	25	..
TOTAL	1,023	103	..

2.—DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS		
	Found.	Remedied.	Prosecutions
<i>Nuisances under the Public Health Acts:—</i>			
Want of Cleanliness	68	68	..
Want of Ventilation	2	2	..
Overcrowding	2	2	..
Want of Drainage to Floors	1	1	..
Other Nuisances	7	7	..
Sanitary Accommodation	Insufficient	6	..
	Defective	16	..
	Not separate for sexes	1	..
TOTAL	103	103	..

Other Matters.

Matters notified to H.M. Inspectors of Factories—

Failure to affix Abstract of the Factories and Workshop Act (sec. 133) .. 52

Matters notified by H.M. Inspector 13

Underground Bakehouses (sec. 101)—

In use at the end of 1904 35

In use at the end of 1905 32

HOMEWORK.—Lists of outworkers (sec. 107)—

	Number of Lists.	Outworkers.
Lists received	56	422

Addresses of outworkers—

Forwarded to other Authorities 197

Received from other Authorities 0

Homework in unwholesome or infected premises—

	Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises (sec. 108)	0	0

Cases of infectious diseases notified in homeworkers' premises .. 6 0

Orders prohibiting homework in infected premises (sec. 110) .. 6 0

Workshops on the Register at the end of 1905 603

Infectious Diseases Notification and Prevention Acts.

The following list shows the number of cases notified under the provisions of the Infectious Diseases Notification Act, and again Mr. Wright has combined with it the figures for each year since the Notification Act was adopted.

NAME OF DISEASE.	NUMBER OF CASES EACH YEAR.									
	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Scarlet Fever	236	185	75	43	62	268	89	68	65	30
Erysipelas	35	53	36	52	49	59	30	35	49	46
Typhoid Fever	16	37	16	28	22	19	7	5	5	6
Diphtheria	13	12	39	50	11	12	17	18	4	7
Puerperal Fever	3	6	2	8	8	8	3	7	6	3
Membranous Croup	2	—	3	6	7	2	—	—	1	—
Continued Fever	1	6	2	1	2	2	4	—	1	—
Variola	1	—	—	—	—	2	5	—	—	—
Choleraic Diarrhœa	—	1	—	—	—	—	—	—	—	—
Anthrax	—	—	1	—	—	—	—	—	—	—
TOTALS	307	300	174	188	152	372	155	133	131	92

It will be seen by the above table that thirty-nine fewer cases were notified this year than in any previous year since the adoption of the Act.

The following list shows the number of houses and the different wards in which cases of Infectious Diseases occurred during the past year :—

NAME OF DISEASE.	NO. OF CASES.	NORTH WARD.	EAST WARD.	WEST WARD.	NO. OF HOUSES INFECTED.
Scarlet Fever	30	5	11	14	28
Erysipelas	46	6	24	16	43
Typhoid Fever	6	—	3	3	5
Diphtheria	7	3	3	1	7
Puerperal Fever	3	2	1	—	3
TOTALS	92	16	42	34	86

Mr. Wright has also tabulated the streets in which the Infectious Diseases have occurred, and also the ages of the individuals affected.

Disinfection and Disinfectants.—Disinfection and other precautionary measures for the prevention of the spread of disease were duly carried out, children from infected families were advised not to attend school, and any defects in the houses or localities were remedied. Disinfectants were also freely supplied to all who applied for them at the Inspector's office. The cost of disinfectants for the year was £67 0s. 7d., which sum also includes the bulk of the disinfectants sent to Spittlesea.

Spittlesea —Ten cases of Scarlet Fever and three cases of Typhoid Fever were removed to Spittlesea during the year, making a total of 13 cases, as against 23 last year; one of the above cases of Scarlet Fever was sent to Spittlesea from outside the Borough.

School Closure.—Again, as last year, no certificate had to be issued by me during the year for the closure of any one of the Elementary Schools on account of Infectious Disease.

Attendance in Court.—On July 29th I attended in Court to give evidence in the two cherry cases already referred to under the heading of Markets. On the same date I also gave evidence as to the condition of a house in Adelaide Terrace. The Magistrates gave defendants one month to get the house into a better state. Action in this case was instituted by the Police.*

*In justice to ourselves, I may say that the houses had only recently been thoroughly cleansed and white-washed, after legal notice had been served.

Sewage Works.—During the year there were 569,029,660 gallons of sewage pumped, a decrease of 48,030,640 gallons against 1904, or an average daily decrease of 131,590.

Common Lodging Houses.—The Chief Constable reports that there are 3 Licensed Houses in the Borough, containing 18 rooms and 60 beds, providing accommodation for 70 persons per one night. The total number of persons provided for at the Houses during the year was 22,137, an increase of 1,303 persons as compared with last year, and gives an average of 60.64 persons received in these houses each night throughout the year.

Water Analysis.—No samples of water have been submitted for analysis. I have again obtained, through the courtesy of Mr. W. R. Phillips, C.E., the Manager of the Luton Water Works, the following analysis:—

[NOTE.—Column A—Grains per gallon, or parts per seventy thousand; Column B—Parts per million].

	A	B
Total Solid Matter..	24.90000	355.714
Chlorine as Chlorides	1.00000	14.285
Nitrogen as Nitrates	0.17870	2.552
Nitrogen as Nitrites	0.00000	0.000
Nitrogen as Free Ammonia	0.00000	0.000
Nitrogen as Albumenoid Ammonia	0.00187	0.026
Poisonous Metals...	0.00000	0.000

(Signed) EDWARD MARSH.

The above shows what an excellent water is supplied to the inhabitants not only of Luton, but to the districts of Stopsley and Leagrave.

Refuse Destructor.—Mr. Wright reports that the erection of the Refuse Destructor (2 cells) and a new Lancashire boiler in connection with same, were completed in the early part of the year, and the burning of refuse was commenced on March 27th, and has been continued ever since with the exception of the few days when the cells were closed down for the purpose of cleaning out the flues and boilers. The total amount of refuse burnt during working days was 7,891 loads, giving an average of 29 loads per day. The wages paid for burning the refuse have amounted to £399 19s. 9d., or about 1s. per load, the receipts for tins and other residuals have been £13 1s. 3d., and the saving in coal to the Sewage Committee during the time (9 months), the Destructor has been working is 353 tons. A third cell is now being constructed; this will complete the original scheme, and should give sufficient cell capacity to deal with the whole of the refuse of the town for some few years, unless its development is abnormally rapid.

Disinfector.—One of Manlove, Alliott & Co.'s Disinfectors has been erected, and has since proved very effective. The steam supply is from the new boiler in connection with the Refuse Destructor.

Local Government Board.—Weekly, Quarterly, and Annual returns of the notifiable Infectious Diseases in the Borough have been forwarded to the Local Government Board as usual. The Board have, in consideration of the above, forwarded me weekly returns of the notifications in Boroughs and Urban Districts. In addition, the voluminous Annual Returns, which yearly tend to become more exacting, will be found appended at the end of this report.

County Council.—Monthly returns of notifiable Diseases in the Borough have as usual been forwarded to the County Council, and as usual I have received corresponding monthly returns of all the Sanitary Boroughs and Districts in the County.

Infectious Diseases and Prevention.

- (i). NOTIFICATION.—Ninety-two cases were notified.
- (ii). ISOLATION.—13 cases were removed to Spittlesea. The remaining cases were kept under observation at their own homes.
- (iii). DISINFECTION of rooms, bedding, clothing, etc., has been carried out as usual in every case notified of ordinary Infectious Disease, and in most of the cases in which death had occurred from Cancer or Phthisis.

(iv). INVESTIGATIONS of possible sources or favouring conditions of Infectious Diseases were systematically made.

(v). THE CHANNELS OF INFECTION were controlled as far as prohibiting children attending school from infected houses was concerned.

Hospital for Infectious Diseases.—The Scarlet Fever and Typhoid Fever Wards have been occupied during only a portion of the Year. The Small Pox Hospital has fortunately not been called into requisition.

Infectious Diseases—advice as to.—My advice had not to be sought with regard to closing any of the Public Elementary Schools during the year.

Sanitary Requirements.

If fresh requirements did not, in the onward march of our civilisation, from time to time arise, I should be, for once, reporting that we now had no special requirement. But there are two particular ones which have recently come prominently into notice, and which I have added to the list within the last two or three years, viz.:

(1). Provision for cases of Phthisis.

(2). Some attempt to check the excessive infant mortality, by means of the appointment of a Lady Inspector.

With regard to No. 1. Some provision ought to be made for advanced cases of Phthisis, whether in a specially erected ward of our Infirmary, or otherwise, and further, provision ought to be made for cases in an early stage—curable cases. In my opinion this provision ought to be made by the County Council. This can be effected in a very economical and practical manner, without the necessity of wasting money on expensive buildings.

With regard to No. 2. Some attempt should be made to lessen the infant mortality; this might be very practically attempted by obtaining the services of a Lady Inspector, or perhaps better still, a Nurse, with some sanitary knowledge. It might further be thought advisable, through the Nurse, to supply, during a spell of hot weather, sterilized milk, or some infant food only requiring the addition of boiled water, or milk powder only requiring the same addition. The expense of the infant food, if it could not fall upon the Sanitary Authority, ought easily to be supplied by public subscription. Other subjects, such as medical examination of all school children, and their instruction in hygiene, etc., are rapidly coming to the front, and will doubtless soon be found in my reports as necessary requirements.

In conclusion, I would remark that the year under review has not been in most particulars an unsatisfactory one. The death rate, 13.6, is about the average of the last few years; the birth rate exactly the same as last year, 27.1; The zymotic rate the lowest on record, 0.04; the infant rate, 120.6, like last year below the average. The deaths from Phthisis were about the average, 40, but those from Cancer, which were 27 last year, rose this to 38; this fluctuation is not unusual. The notifications of infectious diseases have been the fewest since the adoption of the Act, the Fever Hospital correspondingly had a small number of occupants. The Refuse Destructor has not disappointed our expectations, and is a vast stride in the direction of sanitary reform. The Steam Disinfector has been a welcome and useful addition. My report has been lengthy, but has been written with the object of bringing all the special subjects up to date. Our Borough ought always to be found in the van of progress. When this report was half written one of my eyes became for the second time affected, so that under medical advice I was not allowed to read or write. I have done the best I could under the circumstances, though not as well as I should have liked. Nothing remains but to thank my brother officials for their kind co-operation during the year, and you, Gentlemen, for your invariable courtesy.

I am, Gentlemen,

Yours obediently,

HORACE SWORDER.

Vital Statistics of Luton Urban District during 1905 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1895	33 000	906	27.4	125	137.9	475	14.3	..	..	..	475	14.3
1896	33,600	958	28.5	155	161.8	533	15.8	..	..	..	533	15.8
1897	34,200	996	29.1	187	187.9	537	15.7	..	..	..	537	15.7
1898	34,800	1,099	31.5	176	160.1	529	15.2	..	..	..	529	15.2
1899	35,400	1,004	28.3	176	175.2	583	16.4	..	..	..	583	16.4
1900	36,000	1,035	28.7	129	124.6	498	13.8	..	..	..	498	13.8
1901	36,600	971	26.5	130	133.8	469	12.8	61	12	4	461	12.5
1902	37,000	932	25.1	134	143.7	492	13.2	63	21	2	473	12.7
1903	37,500	979	26.1	125	127.6	520	13.8	90	22	No Return	498	13.2
1904	38,000	1,035	27.1	130	125.6	496	13.0	73	20	1	477	12.5
Averages for years 1895-1904.		991.5	27.83	146.7	147.8	513	14.4	71.75	18.75	1.75	506.4	14.2
1905	38,500	1,045	27.1	126	120.6	526	13.6	84	13	No Return	513	13.3

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Total population at all ages, 36,404. Number of inhabited houses, 7,736. Average number of persons per house, 4.7. (At Census of 1901).

Cases of Infectious Disease notified during the Year 1905.

NOTIFIABLE DISEASE.	AT ALL AGES.	AT AGES—YEARS.						No. of Cases removed to Hospital.
		Under 1.	1 to 5	5 to 15.	15 to 25	25 to 65.	65 and upwards	Urban.
Diphtheria ..	7	..	2	4	1	..	..	..
Erysipelas ..	46	..	1	2	5	33	5	..
Scarlet Fever ..	30	..	7	18	4	1	..	10
Enteric Fever..	6	..	..	1	1	4	..	3
Puerperal Fever	3	..	..		1	2	..	..
TOTALS ..	92	..	10	25	12	40	5	13

Institutions receiving Sick and Infirm Persons.

Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the district.
Bute Hospital. Workhouse Infirmary. Children's Sick and Convalescent Home. Children's Homes (Union).	Spittlesea Isolation and Fever Hospital.

Causes of and Ages at Death during the Year 1905.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							TOTAL DEATHS WHETHER OF RESIDENTS OR NON "RESIDENTS" IN PUBLIC INSTITUTIONS IN THE DISTRICT.
	ALL AGES.	Under 1 year	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards	
Whooping-cough	4	2	2	..	..	..	..	..
Epidemic influenza	1	..	..	..	..	1	..	1
Diarrhoea	12	12	..	..	..	..	..	..
Enteritis	12	5	..	1	1	3	2	..
Puerperal fever	3	..	..	..	1	2	..	1
Erysipelas .. .. .	..	..	..	..	..	..	..	1
Other septic diseases .. .. .	..	..	..	..	..	..	..	2
Phthisis Pulmonary Tuberculosis	38	..	1	2	11	24	..	4
Other tubercular diseases	5	..	1	2	..	1	1	1
Cancer, malignant disease	38	..	..	..	..	11	27	5
Bronchitis	48	18	6	1	..	9	14	1
Pneumonia	9	1	1	1	..	2	4	1
Other diseases of Respiratory Organs	4	1	1	..	..	..	2	..
Alcoholism	6	..	..	..	..	4	2	2
Cirrhosis of Liver	6	..	..	..	..	..	..	..
Premature birth	18	18	..	..	..	..	..	2
Diseases and accidents of par- turition	2	..	..	..	..	2	..	..
Heart diseases	61	1	1	2	..	35	22	9
Accidents	7	1	2	..	1	3	..	2
Suicides	2	..	..	..	1	1	..	..
Wasting Infantile	19	19	..	..	..	..	..	..
Senile	53	..	..	..	..	1	52	23
All other causes	171	48	11	12	3	57	40	29
All causes	513	126	26	21	18	156	166	84

Infantile Mortality during the Year 1905.

CAUSE OF DEATH.	Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months	11-12 Months	Total Deaths under One Year.
<i>Common Infectious Diseases</i>																	
Whooping Cough .. .. .	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2
<i>Diarrhoeal Diseases—</i>																	
Diarrhoea, all forms .. .. .	..	..	..	..	..	2	1	1	1	..	1	2	2	..	2	..	12
Enteritis, not Tuberculosis .. .. .	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Gastritis, Gastro- intestinal Catarrh .. .. .	..	..	1	1	2	..	1	1	..	..	..	..	..	..	..	..	4
<i>Wasting Diseases—</i>																	
Premature Birth	16	1	..	..	17	..	..	..	..	1	..	..	..	..	..	..	18
Congenital Defects	8	..	..	..	8	..	3	..	..	..	..	..	..	..	..	..	11
Injury at Birth	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
Atrophy, Debility, Marasmus .. .. .	..	3	3	2	8	1	3	4	..	..	..	1	1	1	..	..	19
<i>Tuberculous Diseases—</i>																	
Tuberculous Meningitis .. .. .	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	2
Tuberculous Peritonitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tabes Mesenterica .. .. .	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2
Meningitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2
Convulsions	9	2	..	..	11	6	2	..	..	1	1	..	1	..	..	..	22
Bronchitis .. .. .	..	..	..	..	..	1	..	1	..	2	2	3	3	4	..	2	18
Laryngitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Pneumonia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Suffocation, overlaying .. .. .	..	..	1	..	1	..	1	..	..	1	..	..	..	..	..	..	3
Other causes .. .. .	..	..	..	2	2	2	..	..	..	..	..	1	..	1	..	..	6
	35	6	5	5	51	12	11	8	2	5	6	9	8	9	2	3	126